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## ***WATER RESOURCES TECHNICAL REPORT***

# **MONTANA STATEWIDE OIL AND GAS ENVIRONMENTAL IMPACT STATEMENT AND AMENDMENT OF THE POWDER RIVER AND BILLINGS RESOURCE MANAGEMENT PLANS**

Prepared for:

**U.S. DEPARTMENT OF INTERIOR  
BUREAU OF LAND MANAGEMENT  
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This Water Resources Technical Report has been prepared for the Bureau of Land Management (BLM) by ALL Consulting (Tulsa, Oklahoma) and subcontractor CH2M HILL (Boise, Idaho) in accordance with applicable contracting requirements specific to ALL Consulting's Purchase Order with the BLM and General Services Administration (GSA) contract for Environmental Advisory Services.



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## Acronyms

ac-ft	acre-feet
bgs	below ground surface
BLM	Bureau of Land Management
BIA	Bureau of Indian Affairs
BWPD	barrels of water per day
CBM	Coal bed methane
CO <sub>2</sub>	Carbon Dioxide
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESP	electric submersible pump
ft <sup>2</sup>	square foot
gpm	gallons per minute
hp	horsepower
MBMG	Montana Bureau of Mines and Geology
MBOGC	Montana Board of Oil and Gas Conservation
MDEQ	Montana Department of Environmental Quality
MDNRC	Montana Department of Natural Resources and Conservation
MPDES	Montana Pollutant Discharge Elimination System
m/gL	milligrams per liter
mi <sup>2</sup>	square mile
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
PRB	Powder River Basin
psi	pounds per square inch
RFD	Reasonable Foreseeable Development
RMP	Resource Management Plan
RMA	Resource Management Area
SAR	Sodium Adsorption Ratio
SJB	San Juan Basin
TCF	Trillion Cubic Feet
TDS	total dissolved solids
2-D	two-dimensional
3-D	three-dimensional
USGS	U.S. Geological Society